

United States Joint Forces Command Joint Training Environment (JTE) Standards Brief



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Purpose

Inform stakeholders -

- **Steps taken to define and document Joint Live, Virtual and Constructive (LVC) training standards**
- **Approach that will continue to increase interoperability within the Joint Training Environment**



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Authority

- Department of Defense Directive (DoDD) 1322.18 states that:
 - COMMANDER USJFCOM shall “Develop and maintain open, net-centric, interoperable standards and protocols for LVC joint training systems.”
- Unified Command Plan dated 17 December 2008
 - Joint Force Trainer. CDRUSJFCOM leads joint force training and is responsible to the Chairman for:
Leading the development and operation of joint training systems and architectures that directly support the combatant commanders, Services, and defense agencies.



*Lower the barrier to providing
Joint Training Enablers on demand*

Problem Statement

BLUF: There is a lack of interoperability, increased testing and preparation cost, and redundant development due to the following factors:

- DoD continues to struggle with multiple sets of architectures, standards and data models
- DoD does not have an agreed upon data strategy for modeling and simulation within the training domain
- Training architectures and data standards are not fully synchronized with operational systems (e.g., C2, Intel, Logistics)



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Joint Training Environment Standards Leadership

- **Lead** the identification, publication, maintenance and advocacy of **Joint Training Environment (JTE) Standards**
- **Influence open standards** through participation and membership in non-government standards organizations (e.g. Simulation Interoperability Standards Organization (SISO))
- **Facilitate Integration of** current and emerging **Service training programs** into the JTE
- **Influence future Service training development** to achieve joint interoperability through the JCIDS process



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Standards Way Ahead 1 of 2

Near Term (FY10)

- Influence Service acquisition programs with Joint Training Interoperability Statement (JCIDS) , Q4

"Planning considerations for this new warfighting capability must include provisions for the training capability enhancements that may be

Core Standards	JNTC Implementation Specifics	Version Numbers	Comments	ents
Collaboration	CHAT File Transfer Audio/Video	IRC FTP ITU-T H.323		
Voice	DIS: IEEE 1278 VoIP HLA	1a-1998 ITU-T H.323 DMSO Version 1.3, 1998		
Radio	Compatible with the IEEE 1278.1a (1998) DIS Specification, and capable of stimulating tactical radios JWFC Digital Audio Communications System (DACS) will patch into the AOC's Access Net allowing the ASTi			



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Standards Way Ahead 2 of 2

Deliverables Mid Term (FY11-FY13)

- Expand and refine Live and Virtual Interoperability Standards
- Develop and implement Joint Training Ready Key Performance Parameters
- Investigate the use of a Service Oriented Architecture approach to support Net-Centric training
- Survey current training system data strategies and operational system data strategies (i.e. Terrain, Order of Battle, EW, Message Formats)

Deliverables Long Term (FY14 and beyond)

- Synchronize training system data strategies with operational system data strategies



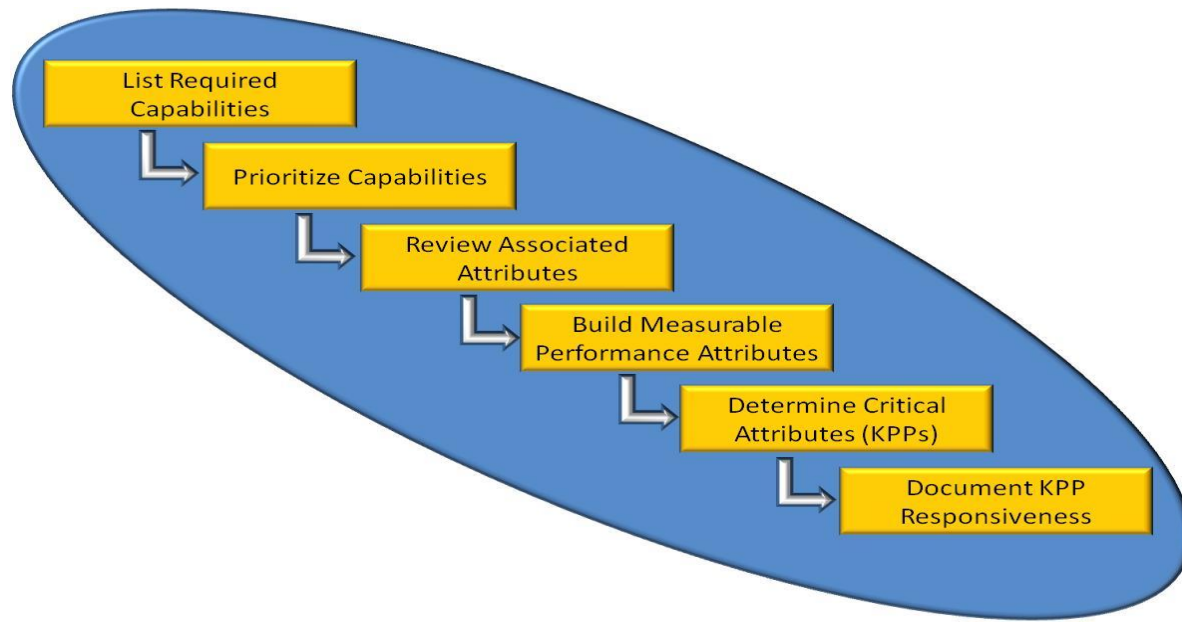
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Joint Training Ready KPP

- **Develop an LVC joint training KPP for new joint training materiel solutions**
- **Examine the Joint training community's LVC required capabilities, capability gaps and DOTMLPF-P possible solutions**
- **The Joint Training Ready KPP will:**
 - **enable a planning and enforcement mechanism**
 - **help optimize funds and reduce duplication of effort in building joint training capabilities**
 - **drive interoperability of joint architectures**
 - **guide Services and COCOMs in building to common standards**
 - **build the foundation for the LVC capabilities and common standards within the training development community**

KPP Development Methodology

- **Leveraging SMEs already established under Training Gaps Analysis Forum (TGAF) or appointed representatives.**
- **Utilizing experts already familiar with the joint training environment to ensure the highest level of effectiveness.**
- **Six Step Process**



Joint M&S Requirements Management Process

- **Develop a systematic approach to M&S Requirements Management**
- **Will leverage existing processes such as Training Gap and Analysis Forum**
- **Will provide for senior level oversight of new Joint Live, Virtual and Constructive capability development**
 - **Address concerns that JLVC changes have resource implications to Service training programs**

Governance Process

- Joint Training Environment Interoperability Integrated Product Team (JTEIPT) – Develops JTE interoperability standards (Training System developers)
- JTE Architecture and Technical Standards (JATS) COI: Socializes and coordinates updates (COCOMs, Services, Joint Staff & OSD representation)
- Signed by JFCOM J7 Director and DUSD(R)



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Standards Summary

In order to increase interoperability and decrease overall training deliver costs, JFCOM J7 will:

- Publish an authoritative/recognized set of Joint Training Standards products that is the blueprint to ensure reuse and facilitate interoperability
- Socialize Joint Training Standards Products across the Joint Training Standards Community of Interest (COI)
- Develop and recommend a joint training system interoperability Key Performance Parameter (KPP) ...Joint Training Ready KPP
- Influence open standards through non-government standards development organizations



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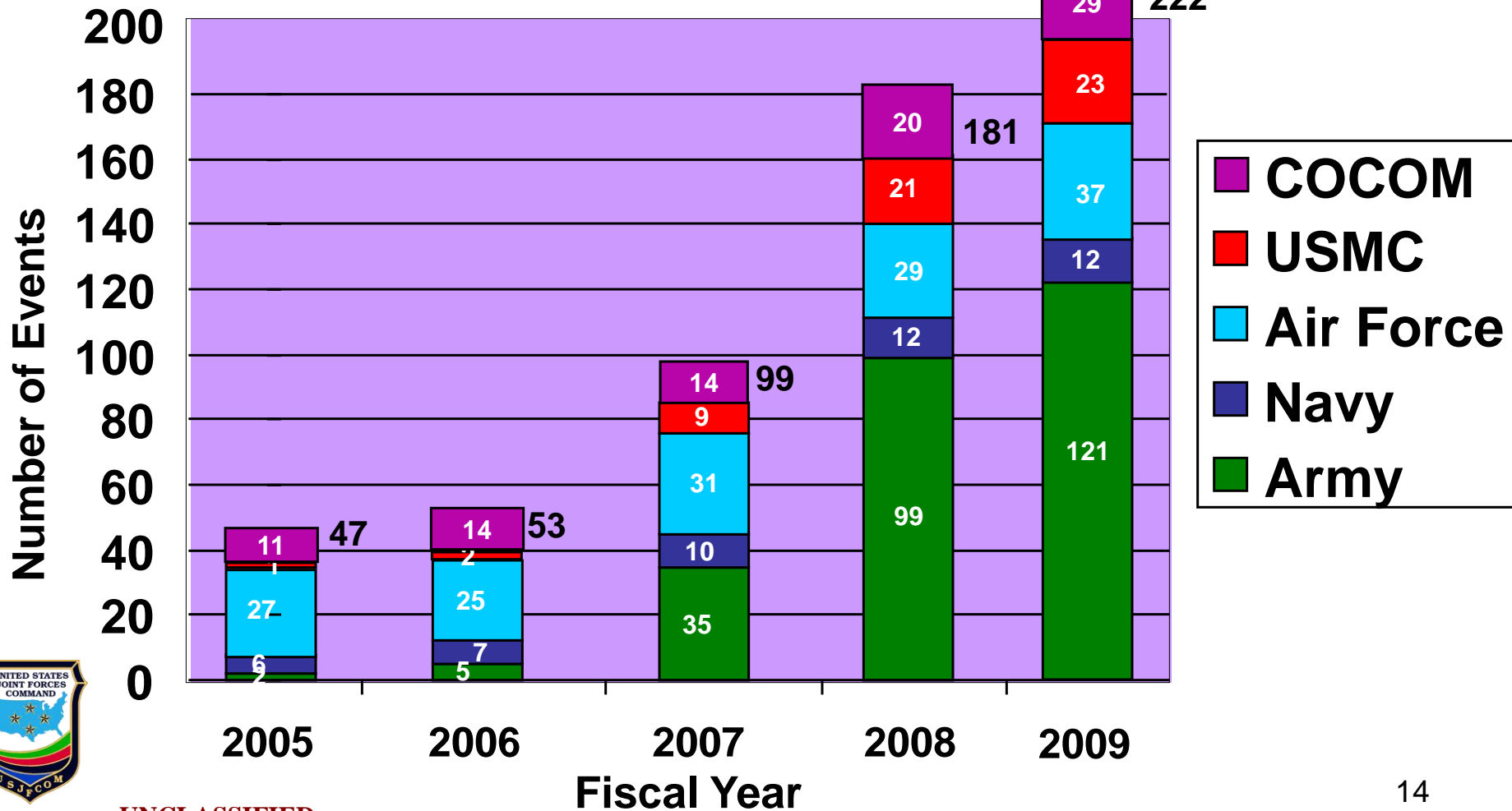
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QUESTIONS?



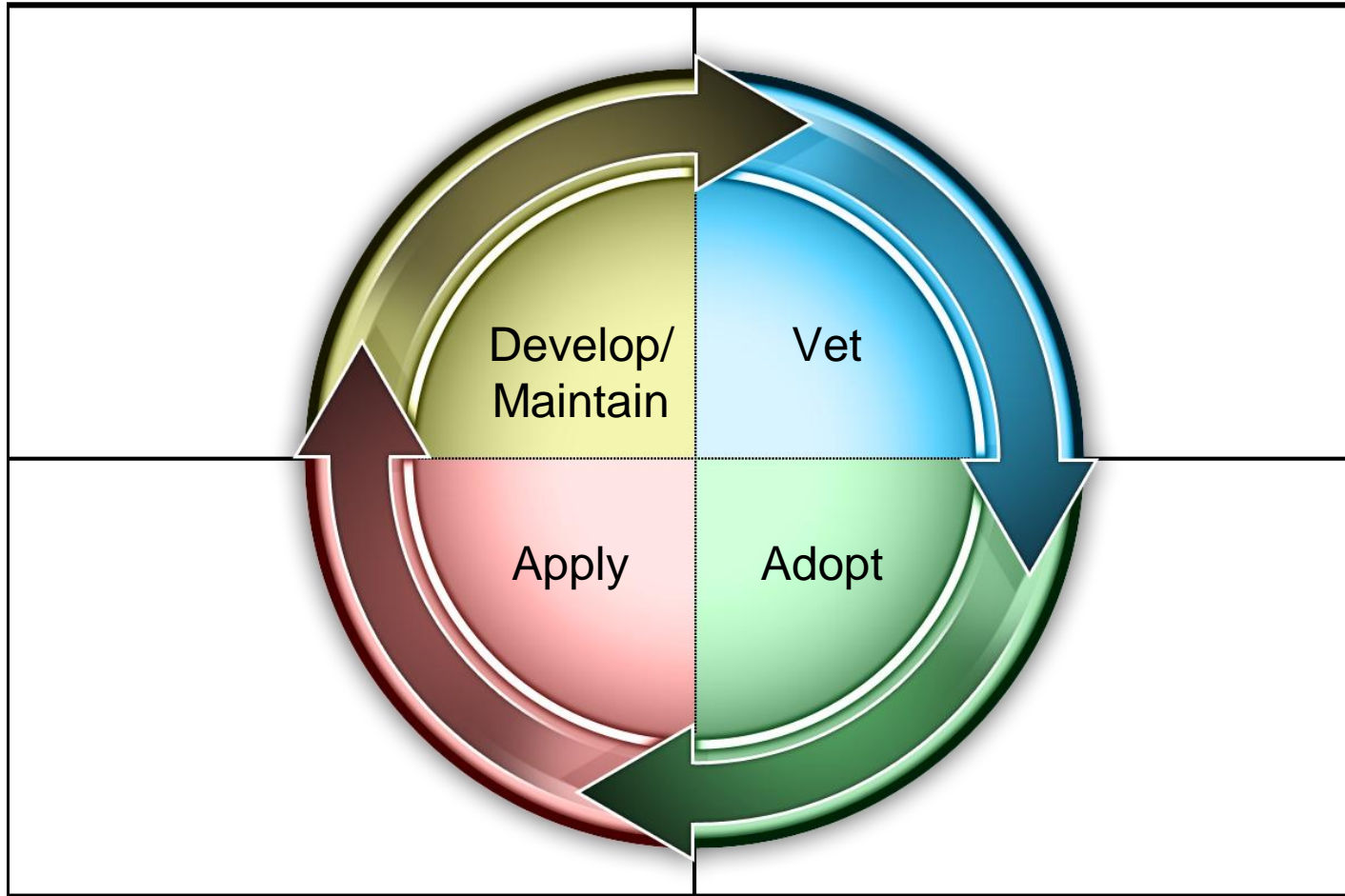
The Significance of Standards

COCOM & Service Training Events with Joint Context



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Standards Life Cycle



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Current JTE Products and Collaboration

- Products

- All View (AV-1)
- Integrated Dictionary (AV-2)
- Technical Standards Profile (TV-1)
- Technical Standards Forecast (TV-2)
- JLVC Federation Integration Guide

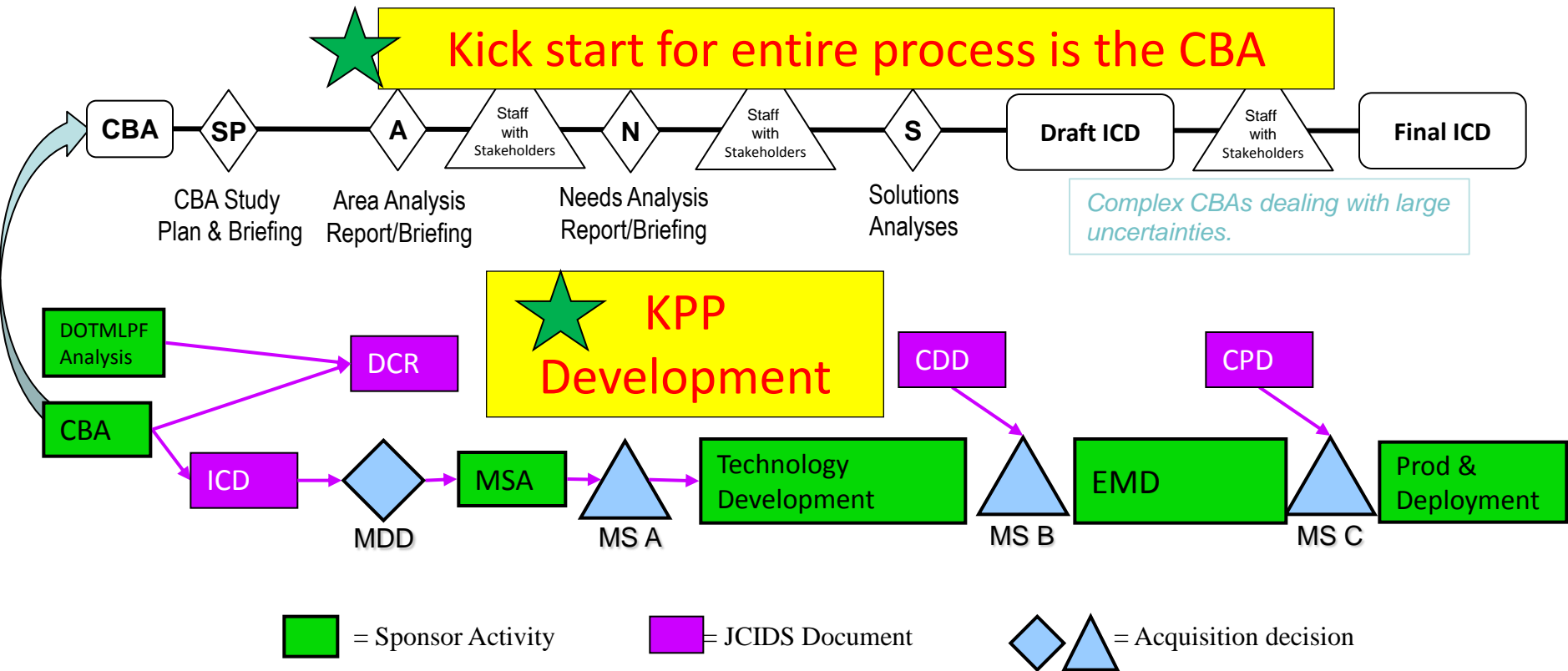
- Collaboration

- DOD Standards Vetting Tool (DSVT)
- I/ITSEC “Challenges in Joint Live-Virtual-Constructive (LVC) Training” Standards Workshop
- “The Development of a DoD M&S Standards Profile” paper
- JTE Architecture and Technical Standards Community of Interest

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CBA Process In Support Of JCIDS



ICD = Initial Capabilities Document

CDD = Capabilities Development Document

CPD = Capabilities Production Document

DCR = DOTMLPF Change Request

CBA = Capabilities-Based Assessment

MDD = Materiel Development Decision

MSA = Materiel Solutions Analysis

EMD = Engineering & Manufacturing Development

KPP Development

- **KPPs are normally determined during the technology development and presented in the CDD (Post ICD and Post AoA).**
- **All systems have KPPs that can be traced back to the capability definitions in the ICD and to the joint functions defined in the Joint Publication 3-0 to which the proposed system makes a significant contribution.**
- **Attributes defined in the ICD may be designated as KPPs and have threshold and objective values defining the system's contribution to the capability.**
- **Questions for an attribute to lead to a KPP**
 - **Is the attribute a necessary component of the mandatory KPPs (statutory, sustainment, or net-ready) or is it essential for providing the required capabilities?**
 - **Does it contribute to significant improvement in warfighting capabilities, operational effectiveness, and/or operational suitability?**
 - **Is it achievable and affordable (total life-cycle costs)?**
 - **Is it measurable and testable?**
 - **Are the definition of the attribute and the recommended threshold and objective values reflective of fiscal constraints, applicable technology maturity, timeframe the capability is required, and supported by analysis?**
 - **Did the analysis determine the need for the system training KPP. If not, did the analysis provide quantifiable justification for not having system training as a KPP?**

Origins of Mandatory KPPs

- **Mandatory KPPs originally developed thru either JROC or Congressional direction**
- **Phased applicability of Mandatory KPPs determined by program impact**
- **There is no formal written process for designating a new mandatory KPP**
 - **Must be JROC approved**
 - **Initial implementation done thru JROCM**
- **Approval for a new mandatory KPP requires demonstrating to the JROC the problem is serious enough and pervasive enough to require this action (evidence supported by rigorous analysis)**
- **"Mandatory" designation means KPP potentially applies to every requirement in DoD (pervasive)**
 - **Convincing the JROC means convincing the Services it is in their best interest**
 - **Must demonstrate value to the joint warfighter outweighs potential cost to Services**
- **JS J-8 POCs**
 - **CAPT Mike Ford, Requirement Directorate (703) 697-5595**
 - **BG Harrison, Deputy Director for Requirements**

System Training KPP

Training should be considered early in the capabilities development process beginning with the analyses that support development of the ICD and continues with development of the CDD. Ensure system training is addressed in the AoA and supporting analysis for subsequent acquisition phases and ensure projected training requirements and associated costs are appropriately addressed across the program life cycle. Embedded training and net-centric enabled training shall be considered the first alternative for cost effective delivery of instruction. The training capability requirements should be on par with operational systems capability.